

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

539671
PCT/DE2003/004131



Applicant's or agent's file reference G 779 PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/004131	International filing date (day/month/year) 16 December 2003 (16.12.2003)	Priority date (day/month/year) 17 December 2002 (17.12.2002)
International Patent Classification (IPC) or national classification and IPC B23P 15/00		
Applicant FEDERAL-MOGUL WIESBADEN GMBH & CO. KG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 15 June 2004 (15.06.2004)	Date of completion of this report 01 September 2005 (01.09.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2003/004131

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages _____ 1-10 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____ 1-14 _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the drawings:
 pages _____ 1/4-4/4 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-14	YES
	Claims		NO
Inventive step (IS)	Claims	1-14	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-14	YES
	Claims		NO

2. Citations and explanations

1. Reference is made to the following documents:

D1: DE 197 33 285 A (GLYCO METALL WERKE)

11 February 1999

D2: GB-A-1 391 427 (VANDERVELL PRODUCTS LTD)

23 April 1975

D3: US-A-4 292 718 (IIJIMA YOSHIO) 6 October 1981

D4: US-B1-6 227 709 (LEHMANN UWE ET AL)

8 May 2001

2.1 D1 (cf. claims; figures) is considered the prior art closest to the subject matter of claim 1. It discloses a method of producing bearing shells, wherein blanks are prepared from strip material and are shaped into bearing shells which are then provided with a sliding layer.

D1 discloses that at least one depression is made as a marking in the sliding layer, the depth $T \leq$ the maximum permissible coarse depth R_t . A region 40° to 50° away from the part area is proposed as the marking site. The marking substantially consists of a smoothing of the surface roughness of the sliding

layer, the production of which requires a separate method step using a marking element whose spring force may not be greater than the spring force of a probe for measuring the wall thicknesses. This method is extremely sensitive and not absolutely suitable for series production.

Therefore the subject matter of claim 1 differs from that of D1 in that, before the sliding layer is applied, within a strip-shaped region below the part area at least one marking impression is made in the inner surface of the blank or bearing shell, the depth and widthways extension of the marking impression being such that the contour of the marking impression is retained when the sliding layer has been applied.

Thus an economically favourable method is devised for the permanent application of a marking which is still visible after the bearing shell has been fitted and does not adversely affect the bearing shell properties during operation.

D2 (cf. page 1, line 68, to page 2, line 32, and figures) discloses a method of producing bearing shells, wherein a marking is made before the sliding layer is applied. However, it is not possible to deduce from the document whether the marking is made in the inner or outer surface of the blank. No other features of the marking are disclosed in D2.

D3 discloses a method of producing bearing shells wherein a marking is made in the outer surface of the blank when the sliding layer has been applied.

Thus the features of claim 1 are not suggested by the prior art.

Consequently claim 1 meets the novelty and inventive step requirements of PCT Article 33(1).

2.2 Claims 2 to 13 are dependent on claim 1 and hence likewise meet the PCT novelty and inventive step requirements.

2.3 Claim 14 claims a bearing shell having at least one marking impression in its inner surface, within a strip-shaped region below the part area.

The strip-shaped region below the part area on the inside of the bearing shell is not subjected to any stress at all from the part running counter thereto, or only to a minimum extent. The making of the marking impression in this region does not adversely affect the operation of the slide bearing.

D4 (see figures 1 and 2) discloses a bearing shell, a depression being struck or stamped in this region. However, this depression is not a marking impression and is used to facilitate the positioning and securing of the bearing shell in the bearing housing.

D1 proposes that the marking site be a region 40° to 50° away from the part area.

Therefore the features of claim 14 are not suggested or disclosed by the prior art.

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Consequently claim 14 meets the novelty and
inventive step requirements of PCT Article 33(1).